DASHEVSKIY, M.N.; MALEVANNAYA, Z.P.

Structure of dinitroacenaphthene derivatives. Zhur. org. khim. 1 no.7:1272-1276 Jl '65. (MIRA 18:11)

1. Odesskiy politekhnicheskiy institut.

GOL'MOV, V.P.; MALEVANNAYA, Z.P.

Synthesis of cis-1, 2-di(iodomethyl)cyclobutane and of some bicyclo-(3, 2, 0)-heptane derivatives. Zhur.ob.khim. 31 no.5:1440-1445 My '61. (MIRA 14:5)

1. Odesskiy gosudarstvennyy universitet.
(Cyclobutane) (Bicycloheptane)

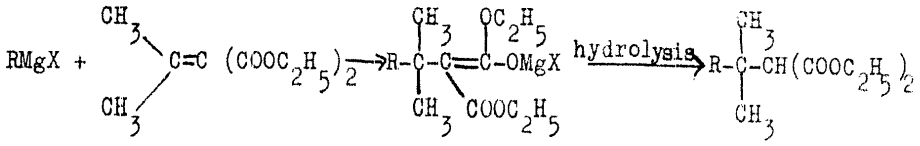
GOL'MOV, V.P.; MALEVANNAYA, Z.P.

New method for the preparation of cis-1,2-cyclobutanedicarboxylic acid. Zhur. ob. khim. 31 no. 3:[illegible] 1961. (MIRA 14:2)

1. Odesskiy gosudarstvennyy universitet.
(Cyclobutanedicarboxylic acid)

SOV/79-28-11-58/55

Affiliation of Organomagnesium Compounds to the Isopropylidene Malonic Ester



In the experimental part the experiments on the affiliation of the organomagnesium compound to the isopropylidene malonic ester are described, which were obtained from ethyl iodide, propyl bromide, isopropyl bromide, and butyl bromide. Thus, hitherto not described α,α-dimethylpropyl, α,α-dimethylbutyl, and α,α,β-trimethylpropyl malonic esters were synthesized. By their saponification the corresponding tert.-alkyl malonic acids are obtained. These acids were transformed into the 3,3-dimethyl hexane and 3,3,4-trimethyl pentanoic acid after their decarboxylation.- There are 3 tables and 14 references.

ASSOCIATION: Odesskiy gosudarstvennyy universitet
(Odessa State University)

Card 2/3

AUTHORS: Gol'mov, V.P., Malevannaya, Z.P. SOV/79-28-11-38/55

TITLE: Affiliation of Organomagnesium Compounds to the Isopropylidene Malonic Ester (Prisoyedineniye magniyorganicheskikh soyedineniy k izopropilidenmalonovomu efiru)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11, pp 3075-3077 (USSR)

ABSTRACT: In the reaction of sodium malonic ester with tertiary alkyl halides the yields of substituted malonic esters are very small (Ref 1) as in that case some side reactions take place (cleavage of hydrogen halide, formation of ethers, etc.). Therefore another synthesis of these compounds is of importance which consists in the affiliation of organomagnesium compounds to the alkylidene malonic ester. This reaction was already described by Kohler and Reimer in 1905 (Refs 2,3), it has, however, been tried with only a few compounds (Refs 4-11). To fill this gap the authors intended to investigate the affiliation of organomagnesium compounds to isopropylidene malonic ester which takes place, as earlier experiments had shown, with CH_3MgJ (Ref 4), C_4H_9MgBr (Ref 4), C_6H_5MgBr (Ref 6), and $C_6H_5CH_2MgBr$ (Ref 6) according to the following scheme:

Card 1/3

MALEVANNAYA, Ye.M.

Effect of molybdenum on vitamin C accumulation in the bodies of animals. Vop. pit. 22 no.2:63-66 Mr-Ap '63. (MIRA 17:2)

1. Iz kafedry gigiyeny pitaniya (zav. - prof. I.P. Barchenko) Kiyevskogo meditsinskogo instituta imeni A.A. Bogomol'tsa.

MALEVANNAYA, Ye.M.

Molybdenum action on an animal. Vrach. delo no.12:121-124 D '61.
(MIRA 15:1)

1. Kafedra gigiyeny pitaniya (zaveduyushchiy - prof. I.P.Barchenko) Kiyevskogo meditsinskogo instituta.
(MOLYBDENUM--PHYSIOLOGICAL EFFECT)

BARCHENKO, I.P.; KRYZHANOVSKAYA, Ye.S.; MALEVANNAYA, Ye.M.; SKOROPOSTIZHANAYA, A.S.; KOZLOVA, T.P.

Method for determining ammonium dinitroorthocresolate (DINOK) for a comparative sanitary and hygienic examination of plant products treated with it. Vop. pit. 19 no.2:72-75 Mr-Ap '60. (MIRA 14:7)

1. Iz kafedry gigiyeny pitaniya (zav. - prof. I.P.Barchenko) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta imeni akademika A.A.Bogomol'tsa.

(CRESOL)

L 7898-66 EWT(m)/EPF(c)/EWP(j) RM

ACC NR: AP5024972 SOURCE CODE: UR/0286/65/000/016/0034/0034

AUTHORS: Kabachnik, M. I.; Tsvetkov, Ye. N.; Lobanov, D. I.; Borisov, G.; Malevannaya, R. A.

ORG: none

TITLE: Method for obtaining methyl-di-(aryl-oxymethyl)- or methyl-di-(β-alkoxy-ethoxymethyl)-phosphine oxides. Class 12, No. 173765

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 34

TOPIC TAGS: alkoxy phosphine oxide, phosphorus compound, organic phosphine, hydrocarbon, organic oxide, organic phosphorus compound

ABSTRACT: This Author Certificate presents a method for obtaining oxides of either methyl-di-(aryl-oxymethyl) or methyl-di-(β-alkoxyethoxymethyl)-phosphines. The oxide of methyl-di-(chloromethyl)-phosphine is reacted with sodium phenolate or with sodium alkoxyethylate in an inert solvent such as toluene.

SUB CODE: 07/ SUBM DATE: 20Jul64

nw

Card 1/1 UDC: 547.419.1.07

MALEVANETS, G.

Balancing pairs of wheels without removing them from the car.
Zhil.-kom.khoz. 4 no.2:21-23 '54. (MLRA 7:5)

1. Glavnyy inzhener tramvaynogo depo im. Rusakova, Moscow.
(Wheels) (Electric railroads)

MALEVANCHIK, Boris Semenovich; IVANOV, S.M., red.

[The road across the dam] Doroga skvoz' plotinu. Moskva, Znanie, 1965. 46 p. (Novoe v zhizni, nauke, tekhnike. IV Seriia: Tekhnika, no.7) (MIRA 18:4)

MALEVANCHIK, B.S., inzh.

Inclined ship-raising structure is a progressive navigation lock. Transp. stroi. 13 no.5:26-31 My '63. (MIRA 16:7)

(Locks(Hydraulic engineering))

ABDULIN, A.; ALEKSEYEV, I.; BANTLE, O.; BOBROV, L.; BOZHANOV, B.; BOYKO, V.; BONDAREV, K.; BORZOV, V.; VERKHOVSKIY, N.; GUBAREV, V.; GUSHCHEV, S.; DEBABOV, V.; DIKS, R.; DMITRIYEV, A.; ZHIGAREV, A.; ZEL'DOVICH, Ya.; ZUBKOV, B.; IRININ, A.; IORDANSKIY, A.; KITAYGORODSKIY, P.; KLYUYEV, Ye.; KLYACHKO, V.; KOVALEVSKIY, V.; KNORRE, Ye.; KONSTANTINOVSKIY, M.; LADIN, V.; LITVIN-SEDOY, M.; MALEVANCHIK, B.; MANICHEV, G.; MEDVEDEV, Yu.; MEL'NIKOV, I.; MUSLIN, Ye.; NATARIUS Ya.; NEYFAKH, A.; NIKOLAYEV, G.; NOVOMEYSKIY, A.; OL'SHANSKIY, N.; OS'MIN, S.; PODOL'NYY, R.; RAKHMANOV, N.; REPIN. L.; RESHETOV, Yu.; RYBCHINSKIY, Yu.; SVOREN', R.; SIFOROV, V.; SOKOL'SKIY, A.; SPITSYN, V.; TEREKHOV, V.; TEPLOV, L.; KHAR'KOVSKIY, A.; CHERNYAYEV, I.; SHAROL', L.; SHIBANOV, A.; SHIBNEV, V.; SHUYKIN, N.; SHCHUKIN, O.; EL'SHANSKIY, I.; YUR'YEV, A.; IVANOV, N.; LIVANOV, A.; FEDCHENKO, V.; DANIN, D., red.

[Eureka] Evrika. Moskva, Molodaia gvardiia, 1964. 278 p. (MIRA 18:3)

S/004/63/000/001/002/002
D205/D307

AUTHORS: Malevanchik, B. and Notarius, Ya., Engineers

TITLE: A jump over a dam

PERIODICAL: Znaniye-sila, no. 1, 1963, 33-36

TEXT: The authors give an account of an inclined lift for transporting ships on land, developed by a team of 'Gidroproyekt' and 'Gidrostal'proyekt', directed by Ye. I. Zalkindson, Chief engineer. The basic idea is to transport the ship in a tank filled with water. Various difficulties connected with the realization of this idea are discussed. There are 5 figures.

Card 1/1

MALEVANCHIK, B., inzh.; NATARIUS, Ya., inzh.

Along fish highways. Znan.-sila 37 no.10:38-40 O '62.
(MIRA 16:1)

(Fishways)

MALEVANCHIK, B., inzh.; NOTARIUS, Ya., inzh.

Jump across a dam. Znanie-sila 38 no.1:33-36 Ja '63. (MIRA 16:3)
(Loads (Hydraulic engineering))

MALEVANAYA, Sof'ya Vasil'yevna; KOZLOVSKIY, Pavel Rostislavovich; MAKSIMOV, Viktor Ivanovich; GOLOV, Aleksey Savinovich; DERIGLAZOV, Ivan Ivanovich; BAKKAL, R.A., otv. red.; BELOV, V.S., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[Overall mechanization and automation of underground transportation in coal mines] Kompleksnaia mekhanizatsiia i avtomatizatsiia podzemnogo tranporta na ugol'nykh shakhtakh. [By] S.V. Malevannaia i dr. Moskva, Gosgortekhizdat, 1963. 171 p. (MIRA 16:6)

(Mine haulage) (Automatic control)

MALEVANAYA, S.V., inzh.

Automatic changing of cars during loading from bunkers. Mekh.i avtom. proizv. 15 no.2:27-29 F '61. (MIRA 14:2)
(Mine haulage)

MALEVANAYA, S.V., inzh.

Searching for efficient means of automatic loading and changing cars in loading them from the bunker. Sbor. KuzNIUI no.8: 63-85 '61. (MIRA 16:3)

(Kuznetsk Basin--Loading and unloading)
(Mine railroads)

MALEVANAYA, S.V., inzh.

Comparative experimental studies of electrohydraulic and electric pushers. Sbor. KuzNIUI no.8:46-62 '61. (MIRA 16:3)
(Kuznetsk Basin--Mine railroads--Equipment and supplies)

MALEVANAYA, S.V., inzh.

Using an LKP-1 vibrating chute drawer in studying the process of unloading coal from a bunker. Izv. vys. ucheb. zav.; gor. zhur. no.8:44-49 '61. (MIRA 15:5)

1. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut. Rekomendovana Kuznetskim nauchno-issledovatel'skim ugol'nym institutom.

(Coal-handling machinery)

MALEVANAYA, S.V.; PLOTNIKOV, Yu.I.

Methods for controlling the discharge and circuits for automatic charging of alkaline storage batteries. Biul.tekh.-ekon.inform. no.8:18-20 '61. (MIRA 14:8)
(Storage batteries)

MALEVANAYA, S.V., gornyy inzh.

Basic problems in the improvement of mine transportation in the Kuznetsk Basin. Ugol' 35 no.9:19-21 S '60. (MIRA 13:10)
(Kuznetsk Basin--Mine haulage)

MALEVANNAYA, S.V.

The GUAPP-1-type hydraulic unit. Biul. tekh. -ekon. inform. no.10: 3-5 '59. (MIRA 13:3)

(Mine haulage)

MALEVANAYA, S., inzh.; PODDUBNYY, V., inzh.

New developments in the mechanization of underground haulage.
Mast.ugl. 8 no.3:14-15 Mr '59. (MIRA 13:4)

1. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Kuznetsk Basin--Mine haulage)

MALEVANAYA, S.V.

MALEVANAYA, S.V., inzhener.

Machine for washing out storage batteries. Mast.ugl. 6 no.9:16-17 S '57. (MIRA 10:11)

(Storage batteries)

MALEVA, M. I.

"Pathologico-Morphological Changes in the Fallopian Tubes and the Uterus in Chronic Inflammation,"

SO: Akusher i Ginkol, No. 2, 1948. Candidate Med. Sci. Mbr., Chair Obstetrics & Gynecology, Moscow Med. Inst., -c1948-.

MALEVA, I.Ya., kand.med.nauk

Studies on protein fractions and lipoproteins in the blood in patients with diabetes mellitus. Terap.arkh. 33 no.3:69-75 Mr '61. (MIRA 14:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. K.G. Nikulin) Gor'kovskogo meditsinskogo instituta.
(DIABETES) (BLOOD PROTEINS)

MALEVA, I.Ya., kand.med.nauk

Insulin effect on electrocardiographic changes in diabetic patients. Terap.arkh. 31 no.11:52-57 N '59. (MIRA 13:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zaveduyushchiy - prof. K.G. Nikulin) Gor'kovskogo meditsinskogo instituta.
(ELECTROCARDIOGRAPHY pharmacol.)
(INSULIN ther.)

MALEVA, I.Ya.

Use of conditioned reflex hypoglycemia in the treatment of diabetes mellitus. Zhur. vys. nerv. deiat. 4 no.1:74-79 Ja-F '54. (MLRA 7:8)

1. Kafedra propedevtiki vnutrennikh bolezney Gor'kovskogo gosudarstvennogo meditsinskogo instituta.

(DIABETES MELLITUS, therapy,
*insulin, prod. of conditioned hypoglycemic reflex)
(INSULIN, therapeutic use,
*diabetes mellitus, prod. of conditioned hypoglycamic reflex)
(REFLEX, CONDITIONED,
*hypoglycemic reflex prod. by insulin in ther. of diabetes mellitus)

MALEVA, I.Y.

The Clinical Significance of the Reinforcement of Conditioned Reflex s to Insulin and Phenobarbitone by Small Doses of the Unconditioned Stimulus. K.G. Nikulin, Y.A. Al'perovich, and I.Y. Maleva. (Klin.med.(Mosk.)) 31, 52-55, May, 1953. 2 refs.

The authors have previously reported the production of hypoglycaemia by means of a conditioned reflex. After 7 or 8 injections of insulin the patient received, under exactly similar circumstances, an injection of normal saline, which gave rise to a definite hypoglycaemic response comparable to that obtained with insulin. This method was applied to the treatment of diabetes, but was not very successful; in 9 out of 26 patients the hypoglycaemic response to saline was either absent or small. Therefore the effect of giving small "reinforcing" doses of the unconditioned stimulus was investigated on 25 patients. Of these, 15 were suffering from peptic ulcer and were being treated with therapeutic sleep induced by phenobarbitone in doses of 0.15 to 0.2 g. thrice daily. The 10 remaining patients were diabetics taking insulin. After the establishment of conditioned reflexes to phenobarbitone and insulin respectively, the doses were reduced drastically, the former to 0.01 g. and the latter to 2 units. All the diabetic patients maintained the condition established on full doses of insulin, whereas the dose of phenobarbitone had to be restored in full after 3 to 4 days, but could subsequently be reduced (after 2 days) to 0.01 g. thrice daily until the end of the course (13 to 25 days in all).

A. Swan

MEDNIKOV, F.A.; MALEVA, I.L.

Simplified method for turpentining resinous species. Gidroliz. i lesokhim. prom. 18 no.5:18-20 '65. (MIRA 18:7)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova (for Mednikov). 2. Spetsial'noye proyektno-konstruktorskoye byuro Gosleskomiteta (for Maleva).

MALEVA,E.; POPOVA,D.

Trauma in children in the Varna Region (during the period 1952-1961). Nauch.tr.vissh.med.inst.Sofiia 42 no.5:79-88 '63.

1. Iz kruzhoka po propedevtichna khirurgiia pri VMI -Varna. Nauchen rukovoditel: dots.dr. P.Altunkov.

MAIEVA, Berta Il'inichna, inzh.; ZELIKSON, T.I., retsenzent;
TIKHONOVA, T.V., red.

[Refining and hydrogenation of oils and fats] Rafinatsiia i gidrogenizatsiia zhirov. Moskva, Pishchevaia promyshlennost', 1964. 107 p. (MIRA 17:10)

L 7941-66
ACC NR: AP5023120

theoretically analyzed. A formula for the probability of failure of protective devices is developed; it takes into account preventive tests of the equipment. For some particular cases, the formulas for the average time and time dispersion of faultless operation are derived. The above analysis permits determining the required equipment reliability or the required test period on the basis of specified reliability of the protective system. Orig. art. has: 4 figures and 40 formulas.

SUB CODE: 09 / SUBM DATE: 16Jul64 / ORIG REF: 001

QC

Card 2/2

L 7944-66 EWT(d)/EWT(1)/EWP(v)/EWP(k)/EWP(h)/EWP(1)/EWA(h) TG

ACC NR: AP5023120 SOURCE CODE: UR/0103/65/026/009/1606/1613

47

AUTHOR: Malev, V. V. (Leningrad)

ORG: none

TITLE: Reliability of protective devices

SOURCE: Avtomatika i telemekhanika, v. 26, no. 9, 1965, 1606-1613

TOPIC TAGS: reliability theory, system reliability

ABSTRACT: The operability of protective devices, in an automatic-control system, cannot be established by watching the normal system processes because, under normal conditions, the protective devices do not influence the system. Hence, the probability of forestalling a failure is considered, in this article, on the basis of known reliability indices of the protective equipment. A system with a flow of emergencies and a flow of failures serviced by a flow of tests is

Card 1/2 UDC: 62-75:621.3.019.3

ACCESSION NR: AP4041958

probability density of the first system failure after last maintenance is shown to be

$$f_0(\tau) = \lambda \frac{(l+r)!}{r!(l-1)!}(1-e^{-\lambda\tau})^r e^{-\lambda l\tau}. \quad (1)$$

where τ is the time from the last maintenance. Using the properties of the Laplace transform, $f^*(s)$, of $f(\tau)$, the mean time between failures for systems with finite operation time is derived as

$$T_{cp} = -\lim_{s\to 0}\frac{df^*(s)}{ds}. \quad (2)$$

Two special cases are considered: time between maintenances is a random variable with exponential distribution $\varphi_t(\tau) = \gamma \exp(-\gamma\tau)$, and periodic maintenance with period T. Comparison of these two cases shows that when maintenance is frequent and $\gamma \gg \lambda$, the average time interval of failurefree performance is $(r+1)!$ times greater when maintenance is periodic with T, than when it is random with the same average rate $\gamma = \frac{1}{T}$. Orig art. has: 23 equations.

ASSOCIATION: none

SUBMITTED: 28Aug63 ENCL: 00 SUB CODE: IE

NO REF SOV: 006 OTHER: 000

Card 2/2

ACCESSION NR: AP4041958 S/0280/64/000/003/0053/0057

AUTHOR: Malev, V.V. (Leningrad)

TITLE: The reliability of standby systems with periodic maintenance

SOURCE: AN SSSR. Izv. Tekhnicheskaya kibernetika, no. 3, 1964, 53-57

TOPIC TAGS: standby system, equipment reserve, system reliability, reliability theory, system maintenance, automatic control system

ABSTRACT: The model consists of $l + r$ devices of the same type with a simple and identical failure mechanism and the same parameter λ. The system is regarded to be operational in the interval $[0, t]$ if, at any moment within this interval, at least l devices are operating. The remaining r devices make up the reserve. The transfer connected with removal of a device for maintenance is failure-proof. At the time of maintenance all devices which failed up to that moment are completely stopped. Maintenance is sufficiently rapid to neglect the probability of another failure during that time. The time interval T_i from the $(i-1)^{st}$ to the i^{th} maintenance $(i = 1, 2, \ldots)$ is a random or a deterministic quantity and can also be a constant T. All T_i's are mutually independent, are not functions of the failure mechanism in separate devices and have the same distribution. The

Card 1/2

SOV/124-59-7-7508

On the Internal Stability of Twin-Shaft Gas-Turbine Units

with the compressor shaft, which is stable within the considered range of parameter values, and the system of the generator shaft, which is neutrally stable (the characteristical equation has one zero root). Under consideration of the variability of the consumption and the generator load with the variation of the number of revolutions, the units of the type mentioned have a range of internal instability with an oscillating boundary at low compression ratios and with an aperiodic boundary at high compression ratios.

L.N. Getsov

VB

Card 3/3

On the Internal Stability of Twin-Shaft Gas-Turbine Units

between the turbines, the combustion chambers, and the compressors. The limits of the stability ranges in the parameter space, which characterize the steady process of the unit, are determined by solving the system of differential equations at an ELI-12 electronic integrator. As such parameters are chosen: the ratio of the cycle temperatures $\vartheta = T_a/T_1$, the total compression ratio ε, and the criterion $r = \varepsilon_k/\sqrt{\varepsilon}$, which characterizes the distribution of the total compression ratio between the compressors of high and low pressure. The computations were carried out for the values $0.31 \leq \vartheta \leq 0.27$, $1.2 \geq r \geq 0.8$, and $\varepsilon \geq 1$. For the schemes having a "nonseparated generator turbine," the stability limit within the considered range of the values of , r, and ε always turns out aperiodic, and its position does not depend on the unit power, the moments of inertia of the rotors, and the volumes of the conduits. The stability becomes worse with increasing temperature and decreasing compression ratio. The units having a "separated generator turbine" consist, to a first approximation (under the assumption that the consumption of the working medium in the turbine and the power of the generator do not depend upon the number of revolutions), of two systems in dynamical respect: the system connected

SOV/124-59-7-7508

Translation from: Referativnyy zhurnal, Mekhanika, 1959, Nr 7, p 57 (USSR)

AUTHOR: Malev, V.V.

TITLE: On the Internal Stability of Twin-Shaft Gas-Turbine Units

PERIODICAL: [Tr.] Leningr. metallich. z-da, 1957, Nr 5, pp 322 - 337

ABSTRACT: The author discusses the internal stability of six schemes of stationary twin-shaft gas-turbine units, which work in accordance to the same thermodynamical cycle and differ in the reciprocal arrangement of compressors, turbines and generators. Studying the internal stability, the author distinguishes the schemes having a "separated generator turbine" driving the generator only, and the schemes having a "nonseparated generator turbine", in which this turbine drives both the generator and one of the compressors. The investigation of stability was carried out on the basis of the linearized equations of the working process, which were compiled under consideration of the inertia of rotating masses, the thermal inertia of the combustion chamber, and the accumulating effect of the volumes

Card 1/3

1/3

MALEV, V. V.

Malev, V. V., Engineer. On Natural Stability of Dual-shaft Gas Turbine Installations p. 322

The above three articles deal with the investigation of stability of gas turbine installations. In the first article the author discusses application of the electrical analog method in investigating stability of the systems with relatively large or small time constants. In the second article the author investigates the problem of natural stability of stationary steam turbine installations using the principle of discrete analysis and taking into account temperature variation in the turbine. In the third article the author presents results of an investigation of natural stability of six different systems of dual-shaft stationary gas turbine installations

Steam and Gas Turbine Construction, Moscow Mashgiz, 1957, 351 pp.

MALEV, V. I.

MALEV, V. I. -- "Investigating the 'Clamping Devices' Used in Drop Forging." Min Higher Education USSR, Ural Polytechnical Inst imeni S. M. Kirov, Sverdlovsk, 1956. (Dissertation for the Degree of Candidate in TECHNICAL SCIENCES).

SO: KNIZHNAYA LETOPIS' (Book Register), No. 42, October 1956, Moscow.

MALEV, V. A.

USSR/Physics - Spectrograph, Magnetic
Nuclear Physics - Conversion Electrons

Jul/Aug 49

"Resolving Capacity of the Magnetic Spectrograph," G. D. Latyshev, V. A. Malev, M. V. Pasechnik, Leningrad Physicotech Inst, Acad Sci USSR, 7 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XIII, No 4

Analysis of experimental data shows that in resolution of two lines (peaks of conversion electrons) lying close together the basic role is played not by the average width of the lines (peaks), according to the usual formula for resolving capacity of a magnetic spectrograph, but by steepness of the right boundary of the lines (peaks). For the case of great steepness of the right boundary of the lines (peaks), the main role in measurements is played by the accuracy of measurements of the magnetic field and its stability. It is necessary to make the right boundary of the lines as steep as possible during operation of the magnetic spectrograph. Graphs show experimental form of line of definite energy E, with x-axis expressing electron energy and y-axis, number of electrons; resolution averages 8 keV. Submitted 16 Jun 49.

PA 152T94

MALEV, V. A.

Sergiyenko, V. A.; Ioffe, Yu, K.; Malev, V. A.; Bashilov, A. A.; Inozemtzev, K. V. "The Fine Structure of the Gamma-Lines of $^{11}C^{11}$II, I." Leningrad Phys-Tech Inst, Acad Sci. 1949

G. D. Latyshev; I. F. Barchuk

MALEV, V.

MALEV, V., PAVEL SIDOROVICH GORSHE'NIN, and others.

Komsomol v aviatsii; aviatsionnyi, parashiutnyi, planernyi i aviomodel'nyi sport k X S"ezdu VLKSM. Moskva, Molodaia gvardiia, 1936. 218 p., illus., ports.

Title tr.: The Young Communist League and aviation; aeronautical, parachute, gliding and model airplane sports at the 10th Congress of the All-Union Lenin Young Communist League.

TL526.R9V84

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

MALEV, P.I.

M.A. Tsvetkov, obituary. Izv. Vses. geogr. ob-va 93 no.1:94-95 Ja-F '61. (MIRA 14:2)

(Tsvetkov, Mikhail Alekseevich, 1875-1960)

MALEV, P.I.

M.A.TSvetkov, 1875-1960; obituary. Vop. geog. no.54:172-173 '61. (MIRA 15:3)
(TSvetkov, Mikhail Alekseevich, 1875-1960)

USSR / Forest Science. General Problems. K-1

Abs Jour : Ref. Zhur - Biologiya, No 17, 1958, No. 77472

Author : Malev, P. I.
Inst : All-Union Correspondence Engineering-Construction Institute
Title : Development of the First Forest Map of the USSR and the Tasks of Their Further Mapping

Orig Pub : Sb. tr. Vses. zaochn. inzh.-stroit. in-t, 1957, 1, 44-59

Abstract : Brief historical data are cited on mapping of forests in pre-revolutionary Russia; maps were named, the forest territories fixed, and their scales indicated. The broadening of forest mapping and its planned character is noted in the Soviet Union (the first forest maps are named). The issue of the "Maps of the Forests USSR" (1956) to a scale of 1:2,500,000 was the sum of the knowledge of forests and silviculture. The organization of activities is described for the creation of the original map; its

Card 1/2

MALEV, P.I.

SUKHOV, Vladimir Ivanovich; MALEV, P.I., red.; SHAMAROVA, T.A., red. izd-va; ROMANOVA, V.V., tekhn.red.

[Compiling and editing general maps] Sostavlenie i redaktirovanie obshchegeograficheskikh kart [n.p.] Izd-vo geodez. lit-ry, 1957. 279 p.
(Cartography) (MIRA 11:2)

MALEV, P.I., kandidat tekhnicheskikh nauk.

Making a 1:2,500,000 scale forestry map of the U.S.S.R. 1:2,500,000. Geod. i kart. no.3:57-61 My '56. (MLRA 9:10)
(Forests and forestry--Maps)

MALEV, P.

Forests and Forestry -- Maps

Useful book "Forest maps and the technique of composing them." L. s. khoz. 5 No. 4 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1953, Uncl.

meter. The problem was to separate the effects of ordering, controlled ordering, and local controlled ordering. It was found that for the 66-Permalloy samples, the thermomagnetic treatment in a rotating magnetic field significantly reduces the H_c, which became uniform in all directions. Thermomagnetic treatment also reduces H_c; however, it was dominant in the direction of the applied external field. Water quenching, following holding at 520C, somewhat decreases the H_c. The results obtained are interpreted in the light of Neel's theory. The decrease of H_c as a result of thermomagnetic treatment in a rotating magnetic field is attributed by the authors to suppression of local controlled ordering. A change in the magnetic properties as a result of "Permally" treatment is attributed to the suppression of local controlled ordering. In a slowly cooled 66-Permally without a magnetic field locally controlled ordering is more of an obstacle in boundary displacement than any other causes. [Translation of abstract]

SUB CODE: 20/

I 05009-67 EWI(1)/EWI(m)/EWP(t)/ETI IJP(c) JD
ACC NR: AR6028434 SOURCE CODE: UR/0137/66/000/005/I028/I028

AUTHOR: Dunayev, F. N.; Malev, N. S.

TITLE: Thermomagnetic treatment of ferromagnetic materials in a rotating magnetic field

SOURCE: Ref. zh. Metallurgiya, Abs. 5I187

REF SOURCE: Uch. zap. Ural'skogo un-ta. Ser. fiz. vyp. 1, 1965, 49-59

TOPIC TAGS: thermonagnetic effect, ferromagnetic material, magnetic field, rotating magnetic field

ABSTRACT: A study was made of the effects of heat treatment, thermomagnetic treatment, and thermomagnetic treatment in a rotating magnetic field (2500 oe) on the H_c of polycrystalline samples of the 66-Permalloy, StE43 transformer steel, and monocrystalline samples of StE330 steel. Disk-shaped samples were etched out of a sheet, annealed in vacuum at ~10^{-5} mm Hg at 1000C for 2 hours, with subsequent cooling in open air at the rate of 100 degrees per hour. The conditions of heat treatment, thermomagnetic treatment, and thermomagnetic treatment in a rotating magnetic field coincided. The H_c was measured on an astatic magneto-

Card 1/2 UDC: 669.245'1+669.15'782]:538.248

L 26647-66

ACC NR: AP5025334

confirms the increase of magnetic texture, and thus is the direct cause of specific losses. The increase of P10/50, B_s and H_c is caused by the partial destruction of the magnetic texture as a result of plastic deformation of these samples which begins at this load capacity. At 800°C no decrease of P10/50 and B_s is observed as a result of thermochemical treatment. A load of 0.25 kg/mm^2 will cause some increase of these values, and therefore it must be the optimum load for this temperature. Orig. art. has: 2 fig. and 1 table.

SUB CODE:11,20/ SUBM DATE: 26Aug64/ ORIG REF: 011/ OTH REF: 001

Card 2/2

L 26647-66 EWT(m)/EWA(d)/T/EWP(t) IJP(c) JD

ACC NR: AP5025334 SOURCE CODE: UR/0126/65/020/003/0458/0460

AUTHOR: Dunayev, P. N.; Druzhinin, V. V.; Malev, N. S.; Prasova, T. I.

ORG: Ural State University im. A. M. Gor'kiy (Ural'skiy gosuniversitet); Verkh-Isetskiy Metallurgical Plant (Verkh-Isetskiy metallurgicheskiy zavod)

TITLE: The effect of thermomechanical treatment on specific losses, on coercive force and on magnetostriction

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 3, 1965, 458-460

TOPIC TAGS: magnetostriction, steel, metal heat treatment, magnetic coercive force, plastic deformation/ E330 steel

ABSTRACT: The effect of thermomechanical treatment on the specific losses, coercive force, and magnetostriction of cold-rolled steel E330 has been studied, and the causes contributing to these changes have been investigated. The specific losses P10/50 were measured by means of a wattmeter. Repeated heating decreases P10/50, coercive force H_c, and magnetostriction λ_s. The higher the temperature of heating the greater the decrease. The cause of this change is basically due to the change of texture with temperature increase, since the energy ratio of the antisotropic form changes. The decrease of λ_s during thermochemical treatment

Card 1/2

UDC: 538.272

ILLEGIBLE

ILLEGIBLE

ILLEGIBLE

ILLEGIBLE

L 15144-66
ACC NR: AP6002671

2

duces H_c by eliminating the domain-boundary-consolidating effect of LOS but it leads to the rise of a magnetic texture where the preferred orientation of the magnetization of domains is parallel to the H_A field. The fact that H_c after quenching is greater in every direction of the specimen than after TMTR indicates that the disordered state in itself is not a cause of the enhancement of magnetic properties in alloys with order-disorder transitions, contrary to what had been thought previously, and that the effect of "permalloy" treatment is conditioned entirely (or chiefly) by the suppression of LOS during this treatment. The attendant investigation of the effect of TMT on monocrystalline E330 ferrosilicon steel did not produce unambiguous results, possibly because of the dissipation of magnetostrictive stresses. It is worth noting that practical applications may be found for the isotropic decrease in H_c following TMTR. Orig. art. has: 2 figures.

SUB CODE: 11, 20/ SUBM DATE: 26Dec64/ ORIG REF: 006/ OTH REF: 005

magnetic alloy 18

Card 3/3

temperature.T_c, etc. resulted in either the absence of both ordering and OS (LOS) or in the absence of ordering and presence of some degree of OS or LOS. In this connection, the authors present the results of an investigation of the effect of TMTR on the coercive force H_c of polycrystalline specimens of permalloy "66" and monocrystalline specimens of E330 ferrosilicon steel as compared with the effect of other types of magnetic treatment and heat. The disk-shaped (diameter 22 mm, thickness 0.35 mm) specimens were preannealed at 1000°C for 2 hr with subsequent cooling at the rate of 100 deg/hr. The rotational speed of the magnetic field in the case of TMTR was 2 RPM. Heat treatment (HT) consisted in heating to 800°C for 0.3 hr with subsequent cooling at the rate of 200°C/hr. H_c was measured by means of an astatic magnetometer with an error of $\pm$0.005 oe. The orientation of the E380 crystal was radiographically determined. The < 100> axis coincided with the disk plane correct to 3°, while the <100> axis was inclined 8° relative to this plane. With respect to permalloy "66", the most interesting findings were: TMTR causes a strong isotropic reduction in H_c; TMT causes a decrease in H_c and -- in the direction at right angles to the field of treatment -- H_A; H_c after quenching is higher than after TMTR. These findings may be explained by means of the mechanism of OS suggested by Neel (L. C. Neel. Comptes rendus Acad. Sci., 1953, 237, 1468); as the specimen gets slowly cooled from $T > \theta$, a LOS forms in each domain and consolidates the domain walls. TMTR prevents the formation of LOS and hence also the consolidation of domain walls so that magnetization and magnetization reversal in any direction will occur in smaller fields. TMT also re-

L 14136-66 EWT(m)/EWP(e)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD

ACC NR: AP6002671 SOURCE CODE: UR/0126/65/020/006/0935/0937

AUTHOR: Dunayev, F. N.; Malev, N. S.

ORG: Ural State University (Ural'skiy gosuniversitet im. A. M. Gor'kogo)

TITLE: Thermomagnetic treatment of permalloy "66" and ferrosilicon in a rotating magnetic field

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 6, 1965, 935-937

TOPIC TAGS: thermomagnetic effect, magnetic field, Curie point, permalloy, ferrosilicon steel, ordered alloy, magnetic domain boundary

ABSTRACT: Thermomagnetic treatment in a strong rotating magnetic field (TMTR) as suggested by one of the authors on discussing Glazer's study (Glazer, A. A. Dissertation. Ural State University, Sverdlovsk, 1958), makes it possible to obtain a new state of ferromagnetics. Assuming, e.g. that the TMT effect in alloys with order--disorder transitions is conditioned by the "oriented superlattice" (OS), TMTR makes it possible to obtain a material with any degree of ordering in nearly complete absence of local OS (LOS), i.e. in the absence of the OS whose direction in each domain is determined by the latter's magnetization direction. By contrast, the previously applied types of treatment (slow cooling without a field or in a stationary field — TMT, quenching from temperatures below Curie point θ or from the critical ordering

Card 1/3 UDC: 538.245:273

DUNAYEV, F.N., DRUZHININ, V.V.; MALEV, N.S.; PRASOVA, T.I.

Effect of thermomechanical treatment on specific losses, coercive force, and the magnetostriction of E330 steel. Fiz. met. i metalloved. 20 no.3:458-460 S '65.

(MIRA 18:11)

1. Ural'skiy gosudarstvennyy universitet imeni A.M.Gor'kogo i Verkh-Isetskiy metallurgicheskiy zavod.

ILLEGIBLE

ILLEGIBLE

ILLEGIBLE

"Zhur Tekh Fiz" Vol XVIII, No 4

Calculates subject attenuation caused by multiple reflection of the leading wave from the sides of the wave guide. States that type H_{mO} and H_{On} waves cannot be studied as frequent occurrences of type H_{mn} waves where m and n are equal to 0. Submitted 31 Oct 1947.

64T89

MALEV, M.N.

New D-galactose formazans. Zhur. ob. khim. 33 no.8:2775-2777 Ag '63. (MIRA 16:11)

1. Institut mozga AMN SSSR.

VASIL'YEV, V.N.; LAZUR, G.L.; MALEV, M.K.; SHERMAN, R., rod.;
NAGIBIN, P., tekhn. red.

[Pocket manual for tractor drivers] Karmannyi spravochnik traktorista. Alma-Ata, Kazsel'khozgiz, 1962. 354 p.
(MIRA 16:4)

(Tractors)

45907-66

ACC NR: AR6015970

the breakdown probability. A design is given for a spark discharger with a ceramic sleeve between electrodes. The sleeve has an annular gap for total elimination of the conducting bridges usually formed on the surface of the ceramic by vaporization of the electrode surfaces. V. Ch. [Translation of abstract]

SUB CODE: 20, 09

Card 2/2 mjs

L 45907-66 EWT(1)/EWP(e)/EWT(m) WH

ACC NR: AR6015970 SOURCE CODE: UR/0275/65/000/011/A028/A028

AUTHOR: Kashnikov, N. G.; Kiselev, Yu. V.; Malev, M. D.

TITLE: A method for reducing the statistical delay time for ignition of a spark discharge

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 11A185

REF SOURCE: Sb. Proboy dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 69-71

TOPIC TAGS: spark ignition, cold cathode, gas discharge, corona discharge

ABSTRACT: A method is proposed for considerably reducing the statistical delay time for ignition of a spark discharge in cold-cathode gas discharge devices. The method is based on creating a sharply nonhomogeneous field in the plane-plane gap by introducing an insulator with a high dielectric constant. A grade 22-X (ε=8) ceramic sleeve between the electrodes reduces the delay time from 50-100 msec to 50 μsec, while a titanium ceramic insulator (ε=1000) reduces the delay time to 2-5 μsec. The authors discuss the mechanism responsible for the reduction in statistical delay when a solid insulator is placed between the electrodes of a discharge gap. The following are cited as possible processes: 1) the generation of corona discharges between the electrodes and the dielectric with subsequent diffusion of particles into the discharge gap; 2) an increase in field strength in the gap resulting in an increase in

Card 1/2

UDC: 537.525

L 22275-66

ACC NR: AR6005192

depends on the distance between electrodes and on the type and pressure of the gas. At constant distance between electrodes, the delay time first decreases with increasing pressure, and then increases. With decreasing interelectrode distance the position of the minimum should shift towards higher pressures. The results of experimental verification of an analysis of two-electrode discharge gaps filled with inert gases and with H_2 are presented. The interelectrode distances change from 0.1 to 2 mm, and the pressure from 0.1 to 10 atm. N. Olendzkaya.

SUB CODE: 20

Card 2/2 nst

L 22275-66 EWT(1)

ACC NR: AR6005192 SOURCE CODE: UR/0058/65/000/009/G018/G018

AUTHORS: Kiselev, Yu. V.; Malev, M. D. 68 B

TITLE: Statistical lag of ignition of a spark discharge in inert gases and in hydrogen

SOURCE: Ref. zh. Fizika, Abs. 9G150

REF. SOURCE: Sb. Proboy dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 72-75

TOPIC TAGS: spark gap, gas discharge, hydrogen, inert gas, ignition lag, pressure effect

TRANSLATION: The authors investigated the influence of the construction of a discharge gap on the statistical ignition lag. A theoretical analysis has been made of the dependence of the statistical lag time on the average rate of formation of electrons in a discharge gap and of the probability of cascade development following the appearance of an initiating electron in the gap. The last factor

Card 1/2

L 22271-66

ACC NR: AR6005185

spark discharge gap with a ceramic bushing between the electrodes is given. The bushing has an annular gap, which eliminates completely the possibility of production of conducting bridges along the surface of the ceramic, which usually results from the sputtering of the electrode surfaces. V. Ch.

SUB CODE: 20

Card 2/2 nst

L 22271-66 EWT(1)

ACC NR: AR6005185 SOURCE CODE: UR/0058/65/000/009/G017/G017

AUTHORS: Kashnikov, N. G.; Kiselev, Yu. V.; Malev, M. D. 78 B

TITLE: Concerning one method of reducing the statistical delay time of spark-discharge ignition

SOURCE: Ref. zh. Fizika, Abs. 9G140

REF. SOURCE: Sb. Proboy dielektrikov i poluprovodnikov. M.-L., Energiya, 1964, 69-71

TOPIC TAGS: spark gap, electric discharge, ignition lag, gas discharge counter, dielectric breakdown

TRANSLATION: A method is proposed for greatly reducing the statistical delay time of the ignition of a spark discharge in gas-discharge cold-cathode devices. The method is based on producing a sharply inhomogeneous field in the plane-plane gap by introducing in it an insulator with large dielectric constant. The construction of a

Card 1/2

MALEV, M. D., Cand Tech Sci (diss) -- "Thermal emission of the grid in electrical vacuum equipment". Moscow, 1960. 16 pp (Min Higher and Inter Spec Educ RSFSR, Moscow Order of Lenin Power Engineering Inst), 250 copies (KL, No 10, 1960, 131)

his formulae do not yield accurate values of grid temperature, but they suffice to give an upper limit of this temperature with an accuracy of 30 to 50°C, which is justified by the good agreement between the results of calculations and experimental data.
There are: 3 graphs, 1 diagram and 4 references, 2 of which are Soviet, 1 German and 1 English.

05275
SOV/170-59-7-6/20

9(4)

AUTHOR: Malev, M.D.

TITLE: Methods of Lowering the Temperature of Grid in Electron Tubes

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Nr 7, pp 35 - 44 (USSR)

ABSTRACT: The author describes a method of thermal calculation of grids in reception-amplifying and generator tubes of low and medium capacities, which ensures the absence of the thermionic grid emission during tube operation. A part of the method described was developed for the first time by Engineer A.V. Gorelik in 1950 - 1955, to whom the author expresses his thanks. The method is based on consideration of thermal equilibrium on the grid and leads to Formulae 2a and 2b for determining the amount of heat which should be eliminated from the grid. The author presents formulae for calculating the heat eliminated by thermal conductivity, Formula 3, and that emitted by a radiator, Formulae 8 and 9. He analyzes the effect of all elements of the circuit on the grid temperature and shows, in particular, the effect of "thermal stoppers". He makes some recommendation on the choice of structural components of the grid circuit and gives examples of thermal calculations of grids, taken from the engineering practice. The author admits that

Card 1/2

66372

SOV/120-59-5-23/46

Measurement of the Work Function by the Initial-current Method

There are 3 figures and 4 references, of which 3 are English and 1 Soviet.

4

SUBMITTED: August 21, 1958

Card 5/5

15 mm. A screen with an aperture is situated at a distance of 5 mm from the cathode. The screen contains a system for spraying the investigated cathode. For measuring the current characteristic, the device is situated in the gap of a magnet; the correct orientation of the instrument is obtained by finding the maximum current at a given anode voltage. The device was used to determine the characteristics for an anode coated with Ba and BaO. The results are shown in Figure 3. From these, it is seen that the contact potential difference of the system can be measured with an error of $\pm$ 0.01 V.

4

Measurement of the Work Function by the Initial-current Method

$$mv_{x0}^2 \geq 2eU_a \qquad (3)$$

for $v_{y0} > 0$ and for any values of x_o, y_o and v_{y0}. From Eq (3). it follows that the dependence of the initial current on the voltage in the system will always obey Eq (1). A special measurement system based on the above method was constructed. The resulting device is shown in Figure 2. This contains a tungsten cathode having a diameter 0.1 mm and two anodes made of molybdenum strip, having a thickness of 20 μ and a width of 1.5 mm. The length of the cathode and the anodes is 50 mm. The distance between the cathode and the "operating" anode is 30 mm, while the distance between the cathode and the so-called "test anode" is

4

Card 3/5

Measurement of the Work Function by the Initial-current Method

usually the case), an experimental plotting of the characteristic does not result in a straight line. Consequently, the work function cannot be determined accurately. A method of "rectifying" the characteristic is therefore suggested. The method is particularly suitable for an electrode system formed of two fine parallel wires. Such an electrode system (Figure 1) is placed in a magnetic field which has the direction of the axis x. Now, an electron leaving the cathode at a point x_o, y_o has velocity components v_{x0}, v_{y0}. In the absence of the magnetic field, the electron will reach the anode only under specified conditions. In the magnetic field, the electron will move helically along the axis x. The radius of the helix is expressed by:

$$r = m v_{y0}/eH \qquad (2).$$

The condition sufficient and necessary for the electron to reach the anode is defined by:

24.7700

66372

SOV/120-59-5-23/46

AUTHOR: Malev, M.D.

TITLE: Measurement of the Work Function by the Initial-current Method

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 5, pp 105 - 107 (USSR)

ABSTRACT: One of the simplest and most accurate methods of determining the work function of a surface relies on the method of shifting the initial-current characteristics (Ref 1). This type of characteristic in a parallel-plate system of electrodes is given by:

$$j_o = AT^2 \exp\left[- e(U_a + \varphi_a)/kT\right] \qquad (1)$$

where φ_a is the anode work function and

T is the cathode temperature in ^oK.

When Eq (1) is plotted as $\lg j_o = f(U_a)$, a straight line is obtained whose position determines the anode work function, while the slope gives the cathode temperature. However, where the electrode geometry is non-planar (as is

Card1/5

MALEV, M.D.

Structure of the active coating of grids of vacuum tubes with oxide-coated cathodes. Nauch. dokl. vys. shkoly; radiotekh. i elektron. no.2:350-362 '59. (MIRA 14:5)

1. Upravleniye radiotekhnicheskoy promyshlennosti.
(Thermionic emission) (Electron tubes)

MALEV, M.D.

Thermionic emission from the grid of vacuum tubes with oxide-coated cathodes. Nauch. dokl. vys. shkoly; radiotekh. i elektron. no.2: 336-349 '59. (MIRA 14:5)

1. Upravleniye Radiotekhnicheskoy promyshlennosti RSFSR.
(Thermionic emission) (Electron tubes)

ILLEGIBLE

ILLEGIBLE

ILLEGIBLE

dotsent, red.; MARCHENKOV, I.A., tekhn.red.

[Drop hammer forging] Shtampovka na molotakh. Pod red. A.S. Kon'kova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 65 p. (Nauchno-populiarnaia biblioteka rabochego kuznetsa, vyp. 10). (MIRA 14:1)

(Forging)

An Investigation of Deformation Occurring in Metal During Open Broaching (cont.)

in the course of B operations the nature of the changes of shape of the metal is governed by the resistance of the annular portion, and that the quality of the stamped forgings will be a function of such variations occurring in the first stage. Computational formulae are derived for the determination of the flow dimensions of the first stage of the B operation. Factors responsible for jamming occurring during S are analyzed.

M. Ts.

SOV/137-59-1-1629

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 216 (USSR)

AUTHOR: Malev, I. I.

TITLE: An Investigation of Deformation Occurring in Metal During Open Broaching of Holes (Issledovaniye formoizmeneniya metalla pri otkrytoy proshivke)

PERIODICAL: Sb. statey Chelyab. politekhn. in-t, 1958, Nr 8, pp 114-132

ABSTRACT: The flow of metal during stamping (S) of annular forgings is presented. An analysis of the flow demonstrates that the quality of forging and the progress of the entire process are predominantly affected by the second stage of S, i.e., the operation of open broaching (B) of holes. Experimental investigations of the kinematics of the process of B of holes in Pb specimens were conducted in a drop hammer; the dimensional variations occurring during B of holes were determined, and the effect of the rounding radii of the broaching tools on the deformation of the metal was established. Recommendations are given for the selection of optimal dimensions of blanks which would ensure production of high-quality forgings at a minimum possible consumption of metal and energy in the process of S. It was established that

Card 1/2

MALEV, I.; PODGORNYY, I. [Podhornyi, I.]

"Geological clock" narrates. Znan. ta pratsia no.7:10-11 Jl '62.
(MIRA 15:7)

(Geological time)

MALEV, I. [Maliev, Y.]; PODGORNYI, I. [Podhornyi, I.]

Wires run into the distance. Znan. ta pratsia no.5:2-4 My '62.
(MIRA 15:6)

(Electric power distribution--Research)

MALEV, F.B.; LEBEDINSKIY, N.P.; NAZHDINA, N.V.

Organization of a centralized diamond grinding of hard-alloy cutting tools. Avt. prom. 30 no.10:35-37 O '64. (MIRA 17:11)

1. Gor'kovskiy avtomobil'nyy zavod.

The cooling of cutting tools with sprayed fluids

fine oil particles while larger particles drop out. Only fine oil mist reaches the tool through the hose. Oil spray is recommended first of all for operations or machines where the common fluid jet cannot be used; for high cutting speed of over 100 m/min pulverized emulsion gives better results than oil. Emulsion is good for broaching, shallow drilling, some threading operations. The effect is high, and the life of end mills cutting alloy steel is 4 -5 times higher than when working without coolant or with compressed air. Particularly high is the effect in tool grinding. A photograph shows the spray device on a grinder (Fig. 7). Spray must be properly directed and its quantity must be right. Best effect is obtained with spray jet hitting the end face of the cutter, but this is not always possible and then it can be directed to the front face and into the contact area between cutter and chip. Emulsion must be fed at a rate not higher than 200 g/h, and the proper feed rate for oil-air mixture is 0.5 - 1.0 g/h. Oil consumption is so low that the oil tank capacity need not be more than 150 - 200 cm^3. There are 5 figures and 2 photographs.

Card 3/6

The cooling of cutting tools with sprayed fluids

injector has a needle for regulating the aperture width in the throttle valve. One new design has the injector and the nozzle combined in one piece (one pipe is for air, the other for emulsion) and is different in principle - emulsion passes through porous material (cermet or abrasive). Air is led through the central nozzle duct with 3-4 atm pressure and the emulsion, under 1-2 atm, through a cylindrical channel in the casing to the periphery of a porous-material core and through this into a central duct where it is pulverized by the air stream. Different nozzles are used for different machines and tools. The Fig. 1 type devices have nozzles made from 6 mm copper or brass pipe with reduced outlet diameter. The pipe end must be flared and it is better to close the outlet with a metal screen which nearly completely stops noise and improves pulverization. But the air pressure must be raised 1-1.5 atm if a screen is used. Still another device (Fig. 5) is described in which oil is forced to the mixer not by air but by the oil-air mixture. Compressed air from the shop line to the mixing lubricator speeds up in a venturi pipe and reaches the air space in the oil tank (1). The oil rises in the pipe (2), passes a stop valve (3) and moves on to a dropper (4). The needle (5) controls the oil volume going into the venturi pipe, and the following portion of air catches the oil from the dropper and gets into the air space in the tank already mixed with oil. Now pressure is exerted by this mixture which has a high speed and carries

23259
S/122/60/000/006/001/001/XX
A161/A126

1.1100

AUTHORS: Malev, F. B., Troitskaya, D. N., Engineers

TITLE: The cooling of cutting tools with sprayed fluids

PERIODICAL: Vestnik mashinostroyeniya, no. 6, 1960, 67 - 71

TEXT: Detailed information is given on fluid spray devices for cutting tools being used at the Gor'kovskiy avtomobil'nyy zavod (Gor'kiy Automobile Plant) for the last two years. Nauchno-issledovatel'skaya laboratoriya stankov i instrumentov, or NILSI, (Scientific Research Laboratory for Machine Tools and Tools) of the Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnical Institute) is assisting the plant in their installation and a total of 70 different machine tools are working with spray by now. It is certain that the method has come to stay, and many other plants began using it too. In one spray device (Fig. 1) compressed air passes a reducer (1) which reduces the pressure to 2-3 atm and then maintains it on this level. Air (and hence the spray) can be cut off by a valve (2) from which it goes simultaneously into the injector (3) and to the top of an emulsion tank (4). Air pressure lifts the emulsion in the pipe into the pulverizing injector and farther in the hose through tap (5) and nozzle (6) to the tool. A different

Card 1/6

MALEV, F.B.; TROITSKAYA, D.N.

Cooling metal-cutting tools with atomized liquids.
Mashinostroitel' no.4:26-27 Ap '60. (MIRA 13:6)
(Metalworking lubricants)